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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/670,177	09/23/2003	Gregor Tuma	SCHWP0181USA	2238

7590 10/11/2007  
RENNER, OTTO, BOISSELLE & SKLAR, LLP  
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Cleveland, OH 44115-2191

EXAMINER
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HOEKSTRA, JEFFREY GERBEN

ART UNIT	PAPER NUMBER
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3736

MAIL DATE	DELIVERY MODE
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10/11/2007

PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

<b>Office Action Summary</b>	<b>Application No.</b> 10/670,177	<b>Applicant(s)</b> TUMA ET AL.	
	<b>Examiner</b> Jeffrey G. Hoekstra	<b>Art Unit</b> 3736	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

#### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) ☒ Responsive to communication(s) filed on 25 July 2007.
- 2a) ☒ This action is **FINAL**.                      2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) ☒ Claim(s) 13-24 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 13-24 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 25 July 2007 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All    b) ☐ Some \* c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

- |  |   |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)   | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                       | 5) <input type="checkbox"/> Notice of Informal Patent Application                       |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

## **DETAILED ACTION**

### ***Notice of Amendment***

1. In response to the amendment filed on 07/25/2007, amendment(s) to the specification and amended claim(s) 15 and 17 is/are acknowledged. The current rejections of the claim(s) 13-24 is/are *withdrawn*. The following new and reiterated grounds of rejection are set forth:

### ***Drawings***

2. The drawings were received on 07/25/2007. These drawings are acceptable.

### ***Claim Rejections - 35 USC § 102***

3. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

4. Claims 13-24 are rejected under 35 U.S.C. 102(b) as being anticipated by Taylor et al. (US 6,231,526 B1, hereinafter Taylor) as broadly as structurally claimed.

5. For claims 15 and 17-19, Taylor discloses a computerized and/or automated surgical assistance device (as best seen in Figures 2, 3, and 10) (10, 120, 140) for positioning, locating, and moving surgical instruments (column 1 lines 13-17 and abstract) with or without a surgeons assistance (column 1 lines 33-40, column 3 lines 11-48, and column 4 lines 6-50), comprising:

- a force applying device (12, 14, 142, 144, 242) comprising a robot (the computer controlled force applying device recited in column 8 lines 8-38) or a manually-

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operable force applying device (the surgeon controlled force applying device recited in column 8 lines 8-38) that is capable of applying a force in a defined direction to the joint and/or to structures connected to the joint (column 20 lines 10-62);

- a force measuring device (95) coupled to the robot and capable of measuring the force applied by the robot to the joint and/or to structures connected to the joint (column 15 lines 28-38);
- a detection device (122) capable of detecting positions of joint components forming the joint and/or positions of structures connected to or to be connected to the joint (column 12 lines 1-64); and
- a computational unit (124, 243) in data communication with said force measuring device and said detection device (column 12 lines 1-64),
- wherein said computational unit is capable of being configured to receive data from the force measuring device and detection device and capable of being configured to ascertain from said data the aperture angle of the joint for a particular applied force based on the detected positions and the measured force (column 12 lines 1-64, column 20 lines 10-62).

6. For claim 13, Taylor discloses said device, further comprising a storage unit for storing (the memory of computer 124, 243) a geometric structure (column 13 lines 5-16) of the joint and/or reference values (column 13 lines 5-16) and capable of determining the aperture angle.

7. For claims 14 and 16, Taylor discloses said device, wherein a data output device (128,247) comprising a display is provided that is capable of automatically displaying

the applied force measured by the force measuring device and is capable of outputting the ascertained aperture angle (column 13 lines 49-65, column 20 lines 10-62).

8. For claim 20, Taylor discloses said device, wherein the detection device is capable of detecting how far a joint or structure connected to the joint moves when a particular force is applied (column 12 lines 1-64, column 20 lines 10-62).

9. For claim 21, Taylor discloses said device, further comprising reference markers (112, 224) attached to the joint and/or the structures connected to the joint, wherein the detection device detects positions of the reference markers (column 12 lines 1-64, column 17 lines 61-67).

10. For claim 22, Taylor discloses said device, wherein the computational unit is capable of registering the joint and/or the structures connected to the joint based on the detected positions of the reference markers (column 12 lines 1-64, column 17 lines 61-67, column 20 lines 10-62).

11. For claim 23, Taylor discloses said device, further comprising a display, wherein the computational device is capable of providing a visual representation (via display 128,247) of the ascertained aperture angle for viewing on the display (column 12 lines 1-64, column 20 lines 10-62).

12. For claim 24, Taylor discloses said device, wherein the computational unit is capable of comparing the ascertained aperture angle to a previously recorded reference value for a particular applied force in the defined direction (column 12 lines 1-64, column 13 lines 49-65, column 17 lines 61-67, column 20 lines 10-62).

***Response to Arguments***

13. Applicant's arguments filed 07/25/2007 with respect to claims 13-24 have been fully considered but they are not persuasive. Applicant argues the anticipatory rejections of claims 13-24 under Taylor, specifically arguing (a) Taylor does not disclose, teach, and/or fairly suggest "a computational unit configured to ascertain the aperture angle of a joint for a particular applied force based on detected positions and measured force" and (b) that "because a computer or other computational unit is capable of being programmed or configured a given way does not mean that a given reference including a computational unit anticipates every claimed computational unit regardless of the claim limitations attached to the particular claimed computational unit".

The Examiner disagrees, maintains the rejection, and notes the following:

14. In response to applicant's argument (a) that Taylor does not disclose, teach, and/or fairly suggest "a computational unit configured to ascertain the aperture angle of a joint for a particular applied force based on detected positions and measured force", a recitation of the intended use of the claimed invention must result in a structural difference between the claimed invention and the prior art in order to patentably distinguish the claimed invention from the prior art. If the prior art structure is capable of performing the intended use, then it meets the claim. In this case, Taylor anticipates the "computational unit" structure and is capable of performing the functions and intended use as claimed.

15. In response to applicant's argument (b) that the references fail to show certain features of applicant's invention, it is noted that the features upon which applicant relies

(i.e., a computer being configured, a computer being programmed, or a computational unit being programmed) are not recited in the rejected claim(s). Although the claims are interpreted in light of the specification, limitations from the specification are not read into the claims. See *In re Van Geuns*, 988 F.2d 1181, 26 USPQ2d 1057 (Fed. Cir. 1993).

16. In addition, in response to applicant's arguments (a) and (b) and with respect to the claimed language "computational unit configured to..." the Examiner reiterates that as claimed Taylor is capable of performing the intended use. The Examiner notes that as claimed the claimed language does not in effect become a special purpose computer programmed with particular functions pursuant to instructions from program software and conversely structurally only requires "a computational unit" capable of being "configured to ascertain the aperture angle of the joint based on detected positions in relation to force measured by the force measuring device, whereby the aperture angle of the joint can be ascertained for a particular applied force" (as in claim 17) or capable of being "configured to receive data from the force measuring device and detection device and configured to ascertain from said data the aperture angle of the joint for a particular applied force based on detected positions and measured force" (as in claim 15).

### **Conclusion**

17. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

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A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jeffrey G. Hoekstra whose telephone number is (571) 272-7232. The examiner can normally be reached on Monday through Friday, 8:00 a.m. to 5:00 p.m. EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Max F. Hindenburg can be reached on (571) 272-4726. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.




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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/J.H./

Jeff Hoekstra  
Examiner, Art Unit 3736

  
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